Locus TECHNOLOGIES

ENVIRONMENTAL SOFTWARE, SERVICES AND SOLUTIONS

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LOS ANGELES

BOSTON

EUROPE

17 April 2008

Mr. Geordie McKee
Renault and Handley
2500 El Camino Real
Palo Alto, CA 94306

RE: Results of Air Sampling
515 Ellis Street
Locus Project No. 23007-2300

Dear Mr. McKee:

This letter provides the written report on the air sampling requested by your tenant, Webroot Software at 515 Ellis Street in Mountain View, California. Locus Technologies (Locus) collected indoor and outdoor air samples at the property on 21 February 2008. The air sampling was conducted to assess the potential for vapor intrusion of volatile organic compounds (VOCs) into indoor air.

This letter discusses the sampling procedure and evaluation of the results.

SAMPLING PROCEDURE:

Generally, there are four different types of air samples. Three types of air samples were collected at 515 Ellis Street as described below:

Indoor Samples: These samples are collected in areas typically occupied by workers, such as offices, conference rooms, and cubicles. Three indoor samples were collected at 515 Ellis Street in offices and cubicle areas.

Pathway Samples: These samples are collected in areas where potential conduits are observed that might provide a direct route for VOC vapor migration into the building. Examples of these potential conduits are utilities, cracks in the floor, or open sumps. Two pathway samples were collected at 515 Ellis Street: one sample was collected in the men's restroom, where a floor drain was found, and one sample was collected in the janitor's closet near a floor drain.

Outdoor Samples: These samples are collected outdoors typically near heating, ventilation, and air conditioning (HVAC) unit inlets. The results from these samples are compared to those from indoor

samples to evaluate the potential contribution of VOCs from outside air to indoor air. One outdoor sample was collected at 515 Ellis Street on the building roof.

The sampling event at 515 Ellis Street was conducted on 21 February 2008. The air samples were collected in summa canisters over 10 hours and sent to a National Environmental Laboratory Accreditation Conference-certified laboratory for analysis using EPA Method TO-15 SIM. In addition, instantaneous grab samples were collected and analyzed by an onsite mobile lab using EPA Method 8021.

EVALUATION CRITERIA:

The sample results can be evaluated to assess whether occupants of the facilities are being exposed to unacceptable levels of indoor air concentrations of VOCs from groundwater vapor intrusion. These evaluations compare the sample results with three tiers of data and/or criteria. Results for the air sampling event on 21 February 2008 are shown in Table 1.

Outdoor: Indoor air samples are compared to the outdoor samples to evaluate the impact of the outdoor air quality on indoor air. The comparison can also help determine if indoor VOC sources or vapor intrusion pathways are present.

Short-Term Exposure: The federal Agency for Toxic Substances and Disease Registry (ATSDR) has developed acute (14-day) and intermediate (15- to 365-day) minimal risk levels (MRLs) applicable to short or moderate exposure periods for certain chemicals. An acute or intermediate MRL is an estimate of the daily human exposure to a chemical that is likely to be without appreciable risk of adverse non-carcinogenic health effects over a specified short-term duration of exposure. These chemical specific estimates are intended to serve as screening levels and are used by ATSDR health assessors and other responders to identify chemicals and potential health effects that may be of concern at sites. MRLs are not intended to define cleanup or action levels for ATSDR or other agencies. Measured concentrations in the air can be compared to MRLs to assess short-term risks. The available MRLs for the site chemicals are shown in Table 1.

Long-Term Exposure: EPA Region IX has published ambient air preliminary remedial goals (PRGs) for certain VOCs as shown in Table 1 and Table 2. The ambient indoor air PRG is applicable to both indoor and outdoor air and is based on a long-term residential exposure scenario. PRGs are risk-assessment tools and are not promulgated cleanup standards. The PRGs provided by EPA Region IX are also generic in that they are calculated without site-specific information.

EPA calculates commercial tenant or worker exposure goals by multiplying the residential goals by a factor of 2.8 for carcinogenic chemicals and by a factor of 1.9 for non-carcinogenic chemicals to adjust for the shorter exposure frequency and duration of 250 days for 25 years and a breathing rate of 15 m^3/day for office workers. For carcinogenic chemicals, the 2.8 factor also includes changing the adult/child resident to an adult worker. Using this methodology, long-term exposure goals in commercial buildings based on risk ranges, as shown in Table 1, can be derived.

RESULTS:

The air samples from 515 Ellis Street were analyzed for chloroform, 1,1-dichloroethane (1,1-DCA), tetrachloroethene (PCE), trichloroethene (TCE), vinyl chloride, 1,2-dichlorobenzene (1,2-DCB), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), Freon 113, and 1,1,1-trichloroethane (1,1,1-TCA). The results of the air samples are shown in Table 1 and Figure 1.

A total of 7 samples were collected over a 10-hour period at 515 Ellis Street. Three indoor samples (515EAMB1, 515EAMB2, and 515EAMB3) were collected from offices and open areas; one outdoor sample (515EHVAC1) was collected on the roof at the HVAC inlet; and two pathway samples (515EPATH1 in the restroom and 515EPATH2 in the janitor's closet) were collected. A duplicate sample was also collected at the 515EPATH2 location.

The following analytes were not detected: indoor samples (1,1,1-TCA, 1,1-DCA; vinyl chloride; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; TCE; 1,2-DCB; and chloroform), outdoor samples (1,1,1-TCA, 1,1-DCA; vinyl chloride; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; TCE; 1,2-DCB; PCE; and chloroform), pathway samples (1,1,1-TCA, vinyl chloride; cis-1,2-DCE; trans-1,2-DCE; TCE; and 1,2-DCB).

In addition, four instantaneous grab samples were collected throughout the day at each of the indoor and pathway sample locations. These samples were analyzed for TCE, PCE, cis-1,2-DCE and trans-1,2-DCE. PCE was detected in one indoor location and one pathway location. No other analytes were detected using the grab sample technique.

Comparison to Outdoors Levels: TCE, the chemical of concern at the Middlefield-Ellis-Whisman site, was not detected in any samples. Pathway samples showed some concentrations of chloroform, which is expected since these samples were collected near a water supply source (faucet, sink, etc.). PCE was detected at low concentrations, but at levels higher than outdoor concentrations. It is very likely that the PCE detected in the indoor samples is a result of indoor sources, such as residue from dry-cleaned clothes.

Comparison to Short-Term Levels: Detected concentrations are below short-term exposure goals, as shown on Figure 1.

Comparison to Long-Term Levels: All concentrations were below, or within, long-term exposure goals. These long-term exposure goals are based on workspace occupancy of 9.5 hours/day, 5 days/week, 250 days/year, and 21 years. Figure 1 shows a comparison of TCE concentrations to long-term and short-term exposure goals. TCE was not detected in any samples collected at 515 Ellis Street.

SUMMARY AND CONCLUSIONS:

Air sampling was conducted at the 515 Ellis Street property to evaluate the potential for migration of VOC vapors from the groundwater into the building, and to determine the risk of inhalation exposure to occupants of the property to VOCs. All results showed acceptable levels of concentrations in

accordance with state and federal comparison criteria, indicating that risk from inhalation exposure due to vapor intrusion of VOCs should not be of concern to occupants of the property.

We recognize that this letter presents technical information that may be difficult to understand, and we want you to be able to ask any questions you may have about the sampling results. Please do not hesitate to call me at (650) 960-1640 if you have any questions or if you would like to schedule a meeting to discuss these results.

Sincerely,
LOCUS TECHNOLOGIES

Elie Haddad, P.E.
Vice President

EHH/cnn

Enclosure

cc: Alana Lee, USEPA Region IX
Faith Denmark, Webroot Software

TABLE 1
AIR SAMPLING RESULTS
21 FEBRUARY 2008
515 ELLIS STREET, MOUNTAIN VIEW, CA

Location	Date	Time	Parameter / Units / Analytical Method	1,1,1-TCA uG/m3	1,1-DCA uG/m3	1,1-DCE uG/m3	1,2-DCB uG/m3	CHLOROFORM uG/m3	CIS-1,2-DCE uG/m3
515EAMB1 (GRAB)	2/21/2008	8:10	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB1 (GRAB)	2/21/2008	10:00	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB1 (GRAB)	2/21/2008	14:17	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB1 (GRAB)	2/21/2008	15:23	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB1	2/21/2008		TO-15 SIM	ND 0.17	ND 0.13	ND 0.063	ND 0.19	ND 0.15	ND 0.12
515EAMB2 (GRAB)	2/21/2008	8:26	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB2 (GRAB)	2/21/2008	10:20	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB2 (GRAB)	2/21/2008	14:31	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB2 (GRAB)	2/21/2008	15:24	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB2	2/21/2008		TO-15 SIM	ND 0.16	ND 0.12	ND 0.059	ND 0.18	ND 0.14	ND 0.12
515EAMB3 (GRAB)	2/21/2008	9:05	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB3 (GRAB)	2/21/2008	10:52	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB3 (GRAB)	2/21/2008	15:05	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB3 (GRAB)	2/21/2008	16:20	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EAMB3	2/21/2008		TO-15 SIM	ND 0.21	ND 0.16	ND 0.078	ND 0.24	ND 0.19	ND 0.16
515EHVAC1	2/21/2008		TO-15 SIM	ND 0.18	ND 0.13	ND 0.065	ND 0.20	ND 0.16	ND 0.13
515EPATH1 (GRAB)	2/21/2008	8:40	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EPATH1 (GRAB)	2/21/2008	10:30	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EPATH1 (GRAB)	2/21/2008	14:44	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EPATH1 (GRAB)	2/21/2008	15:49	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EPATH1	2/21/2008		TO-15 SIM	ND 0.18	0.16	0.079	ND 0.20	0.54	ND 0.13
515EPATH2 (FD)	2/21/2008		TO-15 SIM	ND 0.18	ND 0.13	ND 0.064	ND 0.19	3.3	ND 0.13
515EPATH2 (GRAB)	2/21/2008	8:50	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EPATH2 (GRAB)	2/21/2008	10:41	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EPATH2 (GRAB)	2/21/2008	14:45	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EPATH2 (GRAB)	2/21/2008	15:50	EPA 8021	NT	NT	NT	NT	NT	ND 50
515EPATH2	2/21/2008		TO-15 SIM	ND 0.18	ND 0.13	ND 0.065	ND 0.20	2.6	ND 0.13
SHORT-TERM EXPOSURE GOALS (ug/m3)									
Acute				10092	Not Available	Not Available	Not Available	488	Not Available
Intermediate				3822	Not Available	79.4	Not Available	244	Not Available
LONG-TERM EXPOSURE GOALS (ug/m3)									
Commercial				4370	988	400	400	0.23 - 23	70
CAL-Modified					3.4 - 340			0.98 - 98	

Notes:
- ND - denotes result was below the detection limit
- NT - sample not tested for the given parameter
- FD - Field Duplicate
- Grab samples were analyzed by an onsite mobile laboratory

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TABLE 1
AIR SAMPLING RESULTS
21 FEBRUARY 2008
515 ELLIS STREET, MOUNTAIN VIEW, CA

Location	Date	Time	Parameter / Units / Analytical Method	FREON 113 uG/m3	PCE uG/m3	TRANS-1,2-DCE uG/m3	TCE uG/m3	VINYL CHLORIDE uG/m3
515EAMB1 (GRAB)	2/21/2008	8:10	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EAMB1 (GRAB)	2/21/2008	10:00	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EAMB1 (GRAB)	2/21/2008	14:17	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EAMB1 (GRAB)	2/21/2008	15:23	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EAMB1	2/21/2008		TO-15 SIM	1.0	0.22	ND 0.63	ND 0.17	ND 0.040
515EAMB2 (GRAB)	2/21/2008	8:26	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EAMB2 (GRAB)	2/21/2008	10:20	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EAMB2 (GRAB)	2/21/2008	14:31	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EAMB2 (GRAB)	2/21/2008	15:24	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EAMB2	2/21/2008		TO-15 SIM	0.94	0.28	ND 0.59	ND 0.16	ND 0.038
515EAMB3 (GRAB)	2/21/2008	9:05	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EAMB3 (GRAB)	2/21/2008	10:52	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EAMB3 (GRAB)	2/21/2008	15:05	EPA 8021	NT	6.0	ND 50	ND 3.0	NT
515EAMB3 (GRAB)	2/21/2008	16:20	EPA 8021	NT	17	ND 50	ND 3.0	NT
515EAMB3	2/21/2008		TO-15 SIM	0.96	1.2	ND 0.78	ND 0.21	ND 0.050
515EHVAC1	2/21/2008		TO-15 SIM	0.93	ND 0.22	ND 0.65	ND 0.18	ND 0.042
515EPATH1 (GRAB)	2/21/2008	8:40	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EPATH1 (GRAB)	2/21/2008	10:30	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EPATH1 (GRAB)	2/21/2008	14:44	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EPATH1 (GRAB)	2/21/2008	15:49	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EPATH1	2/21/2008		TO-15 SIM	1.0	0.74	ND 0.67	ND 0.18	ND 0.043
515EPATH2 (FD)	2/21/2008		TO-15 SIM	1.0	0.51	ND 0.64	ND 0.17	ND 0.041
515EPATH2 (GRAB)	2/21/2008	8:50	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EPATH2 (GRAB)	2/21/2008	10:41	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EPATH2 (GRAB)	2/21/2008	14:45	EPA 8021	NT	7.0	ND 50	ND 3.0	NT
515EPATH2 (GRAB)	2/21/2008	15:50	EPA 8021	NT	ND 5.0	ND 50	ND 3.0	NT
515EPATH2	2/21/2008		TO-15 SIM	1.0	0.48	ND 0.65	ND 0.18	ND 0.042
Short-term Exposure Goals								
Acute				Not Available	1356	794	10740	1280
Intermediate				Not Available	Not Available	794	537	77
Commercial *CAL - Modified*				58900	0.9 - 90	139	2.7	1.2 - 120

Notes:
ND - denotes result was below the detection limit
NT - sample not tested for the given parameter
FD - Field Duplicate
Grab samples were analyzed by an onsite mobile laboratory

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Figure 1: TCE Concentrations in Air - 515 Ellis Street